## Patent claims

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- 1. A process for the catalysis of complex reactions of large molecules by means of enzymes bonded to a polymeric support, wherein the polymeric support material has no or almost no pores.
- A process for the enzymatic obtainment of biomolecules, selected from the group consisting of peptides, proteins, oligosaccharides or polysaccharides, from their precursors by means of one or more enzymes bonded to a polymeric support, wherein the polymeric support material has no or almost no pores.
- A process for the obtainment of insulins or their analogs from the corresponding precursors by means of one or more enzymes bonded to a polymeric support, wherein the polymeric support material has no or almost no pores.
- 74. The process as claimed in one of claims 1 to 3, wherein the polymeric support material is a copolymer of the monomers methacrylamide and N,N'-bis(methacrylamide).
  - 5. The process as claimed in one of more of claims 1 to 4, wherein the polymeric support material has oxirane group-containing monomers.
- 25 6. The process as claimed in one or more of claims 3 to 5, wherein the enzyme is bonded covalently to the support material with the aid of oxirane groups.
- 7. The process as claimed in one or more of claims 3 to 6, wherein the enzyme is trypsin.
  - 8. The process as claimed in one or more of claims 3 to 7, wherein the enzyme immobilized on the support has an activity of 0.05 to 0.5 U/ml.

- 9. The process as claimed in one or more of claims 3 to 8, wherein the pH of the reaction solution is 6 to 10.
- 10. The process as claimed in claim 9, wherein the pH is 7 to 9.

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